

REMARKS

Claims 1-22 are pending in this application.

At the outset, Applicants thank Examiners Amini and Brier for the courtesy of granting a telephonic interview with the undersigned on June 9, 2005. During the interview, independent claims 1 and 9 were discussed in view of the asserted prior art reference Tamano et al. (U.S. Patent No. 6,032,157).

In the Interview Summary mailed June 17, 2005, the Examiner indicated that the proposed claim amendments overcame the previous rejections. However, the Examiner asked for clarification regarding whether “computing a georeferencing function on page 10 [of Applicants’ specification] consider as a look up table?” Applicants invite the Examiner to review the specification at page 11, line 8 through page 14, line 20, which describes in further detail the process of arriving at a georeferencing function.¹

In the Office Action,² the Examiner rejected claims 1-22 under 35 U.S.C. § 103(a) as being unpatentable over Saylor et al. (U.S. Patent No. 5,487,139). Applicants respectfully traverse the rejection because the Examiner has not established a *prima facie* case of obviousness. To establish a proper *prima facie* case of obviousness under 35 U.S.C. § 103(a), the Examiner must demonstrate each of three requirements. First, the reference or references, taken alone or combined, must teach or suggest each and every element recited in the claims. See M.P.E.P. § 2143.03 (8th ed. 2001).

¹ In making the various references to the specification herein, it is to be understood that Applicants are in no way intending to limit the scope of the claims to the exemplary embodiments described in the specification. Rather, Applicants expressly affirm that they are entitled to have the claims interpreted broadly, to the maximum extent permitted by statute, regulation and applicable case law.

² The Office Action contains a number of statements reflecting characterizations of the related art and the claims. Regardless of whether any such statement is identified herein, Applicants decline to automatically subscribe to any statement or characterization in the Office Action.

Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. See M.P.E.P. § 2143.01 (8th ed. 2001). Third, a reasonable expectation of success must exist. See M.P.E.P. § 2143.02 (8th ed. 2001). Moreover, each of these requirements must be found in the prior art, not in applicant's disclosure. See M.P.E.P. § 2143 (8th ed. 2001).

Claim 1 recites a "method for georeferencing a raster map image" including, among other steps, "computing a georeferencing function that relates the raster map and the georeferenced map to each other, wherein the georeferencing function specifies a relationship between the image coordinates of the raster map and the geographic coordinates of the georeferenced map." Saylor does not disclose or suggest at least this step of claim 1.

By contrast, the Saylor system uses a vector database to create a vector map that is aligned with a raster map produced from an existing hand-drawn map. In particular, in the Saylor system, an existing cartographic drawing must be scanned to create the raster map. See col. 4, lines 51-53. A vector map is generated by receiving vector information corresponding to the raster map from a vector background database. See col. 5, lines 15-20. The raster map and the vector map are then aligned. See col. 5, lines 29-31. Once the maps are aligned, the system retrieves X, Y coordinate information for a power service interruption location, and displays that location so as to appear overlapped on the raster map. See col. 7, lines 40-52. Aligning maps, however, does not constitute or suggest a georeferencing function that "specifies a relationship

between the image coordinates of the raster map and the geographic coordinates of the georeferenced map,” as recited in claim 1.

Similarly, on page 4 of the Office Action, the Examiner cites col. 2, lines 49-61 of Saylor, which discloses more generally the same process of identifying X, Y coordinates from a database and displaying a raster map displaying a location using the X, Y coordinates. However, as noted above, Saylor does not teach relating the X, Y coordinates into the claimed “geographic coordinates” using a georeferencing function. Saylor, therefore, fails to disclose or suggest at least “computing a georeferencing function that relates the raster map and the georeferenced map to each other, wherein the georeferencing function specifies a relationship between the image coordinates of the raster map and the geographic coordinates of the georeferenced map,” as recited in claim 1.

Furthermore, according to the alignment process of the Saylor system, an approximate alignment of a raster image and a vector image may be made by “eyeballing” the raster image to the vector image. See col. 5, lines 29-42. As another approach, Saylor teaches that software may be used for “automated rectification of the raster map relative to the vector map.” See col. 5, lines 48-53. Applicants note that “rectification” is the process of removing the effects of tilt, relief, or other nonsystematic distortions from imagery, photographs, or maps. However, manually “eyeballing” the raster image to the vector image or using rectification to match the raster image to the vector image does not disclose or suggest “computing a georeferencing function that relates the raster map and the georeferenced map to each other, wherein the georeferencing function specifies a relationship between the image coordinates of the

raster map and the geographic coordinates of the georeferenced map,” as recited in claim 1. Since Saylor does not teach or suggest all of the steps recited in the claim, the Examiner should withdraw the rejection of claim 1 for at least the above reasons.

Furthermore, in the Office Action, the Examiner cites to Saylor at col. 4, lines 7-19, apparently with regard to above discussed step of claim 1. See Office Action, page 5. However, the cited portion of Saylor discloses

CAD capabilities to create nested drawings and maps with graphical tools, complete coordinate geometry features to facilitate the designing and inputting of field and map surveying information for highways, waterways, etc., a graphical relations database system for tracking information contained on maps and drawings, information manipulation capabilities including the ability to zoom and pan maps, and an advanced programmers toolkit which allows users with programming experience to customize the software to particular applications using a high level interface language such as Fortran 77.

See Saylor, col. 4, lines 7-19.

Accordingly, the above portion of Saylor discloses creating drawings and maps with graphical tools to show field and map surveying information and tracking such information included on drawings and maps using a relational database. These teachings, however, also do not disclose or suggest “computing a georeferencing function that relates the raster map and the georeferenced map to each other, wherein the georeferencing function specifies a relationship between the image coordinates of the raster map and the geographic coordinates of the georeferenced map,” as recited in claim 1.

Saylor also discloses that vector images and raster images are revised in a “CAD-like” format. See col. 5, lines 1-28. For vector images, this means that

"latitude/longitude identifiers must be converted to X, Y coordinate pairs." See col. 5, lines 24-26. In other words, the latitude/longitude identifiers are converted to a unique and non-geographic X, Y coordinate system. Moreover, according to Saylor, for raster images, the coordinate system is displayed using CAD system coordinates, and not raw image coordinates. Saylor also teaches that locations of interest, such as customer addresses, are converted to X,Y coordinates using the "converted TIGER vector database." See col. 6, line 46 to col. 7, line 18. In other words, addresses are converted to the unique X,Y coordinate system used by the CAD system via the converted TIGER database. Therefore, since Saylor does not teach or suggest using geographic coordinates or raw image coordinates, Saylor does not disclose or suggest "computing a georeferencing function that relates the raster map and the georeferenced map to each other, wherein the georeferencing function specifies a relationship between the image coordinates of the raster map and the geographic coordinates of the georeferenced map," as recited in claim 1 (emphasis added). The Examiner should thus withdraw the rejection of claim 1 under 35 U.S.C. § 103(a) for at least these additional reasons.

Independent claim 9, while of a different scope, recites features similar to those of claim 1 and was rejected under the same grounds as claim 1. Therefore, claim 9 is also not disclosed or suggested by Saylor for at least the same reasons as explained above with respect to claim 1. Accordingly, Applicants request the Examiner to withdraw the rejection of claim 9, as well as the rejection of dependent claims 2-8 and 10-22, which each depend from one of independent claims 1 and 9, respectively.

CONCLUSION

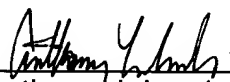
In view of the foregoing remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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